



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/563,990	04/11/2007	Uwe Zimmermann	10191/2040	3338
26646 7590 09/18/2008 KENYON & KENYON LLP ONE BROADWAY NEW YORK, NY 10004			EXAMINER BYTHROW, PETER M	
			ART UNIT 3662	PAPER NUMBER
			MAIL DATE 09/18/2008	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

## Application No.

10/563,990

## Applicant(s)

ZIMMERMANN ET AL.

## Examiner

Peter M. Bythrow

## Art Unit

3662

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) 1-6 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 7-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 December 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/CI/CD)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_
- Paper No(s)/Mail Date \_\_\_\_

**DETAILED ACTION**

***Priority***

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

***Information Disclosure Statement***

2. The information disclosure statements filed 12/11/2006, 12/16/2005 have been entered and considered. Initialed copies of the PTO-1449 by the Examiner are attached.

***Oath/Declaration***

3. The oath filed on 4/11/2007 is acceptable.

***Drawings***

4. The drawings filed on 12/16/2005 are acceptable.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 7 and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Nashif et al. (US 5754123).

**As to Claim 7**, Nashif discloses an object detection system comprising a plurality of object detectors (figure 1 elements 108, 110, 112, 114, 116 and column 1 lines 58-60 and column 2 lines 4-5), a plurality of operating modes (column 1 lines 56-57), the object detectors and operating modes detecting different detection ranges (column 1 lines 66-67 and column 2 lines 12-13) and different detection zones (figure 1 elements 150 and 160).

**As to Claim 13**, Nashif further discloses the object detection system being for a motor vehicle (column 1 lines 47-52 and figure 1).

### ***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nashif et al. (US 5754123) as applied to claim 7 above, and further in view of Tohya et al. (US 5933109).

**As to Claim 8**, Tohya discloses an object detection system wherein the object detectors include a radar (column 2 lines 21-23), the radar sensor having a first detection range with a first angular detection zone in a first operating mode, and having a second detection range with a second angular detection zone in a second operating mode, the first detection range being larger than the second detection range, the first

angular zone being smaller than the second angular zone (column 6 lines 63-67 and column 7 lines 1-5). It would have been obvious to modify Nashif such that the object detectors included a radar, the radar sensor having a first detection range with a first angular detection zone in a first operating mode, and having a second detection range with a second angular detection zone in a second operating mode, the first detection range being larger than the second detection range, the first angular zone being smaller than the second angular zone, as taught by Tohya, as it would cause no new or unexpected results.

**As to Claim 9**, Nashif further discloses the object detection system comprising an ultra short range sensor having a small detection range and a large angular detection zone relative to the radar sensor (column 1 lines 53-67 and column 2 lines 1 - 17 and figure 1).

**As to Claim 10**, Nashif further discloses the ultra short range sensor being an ultrasonic sensor (column 1 line 53-67).

9. Claims 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nashif et al. (US 5754123) and Tohya et al. (US 5933109) as applied to claim 8 above, and further in view of Takano et al. (US 5612686).

**As to Claim 11**, Takano discloses an object detector system comprising a video device (column 3 lines 2-3) for lane detection (column 3 lines 23-34) and classification of detected objects (column 3 lines 35-46). It would have been obvious to modify Nashif and Toyha, such that the object detection system included a video device for lane

detection and classification of detected objects, in order to determine the presence of preceding vehicles in a traveling lane and their likelihood of collision with the operating vehicle based on a range to the preceding vehicle.

**As to Claim 12**, Takano discloses the video device being a CCD camera (column 3 line 2). However, stereoscopic camera and CMOS cameras are well known in the art. It would have been obvious to modify Nashif, Tohya, and Takano such that the video device was a stereoscopic or CMOS camera, as it would cause no new or unexpected results.

### ***Conclusion***

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter M. Bythrow whose telephone number is (571)270-1468. The examiner can normally be reached on Mon-Fri, 8AM-5:30PM, Alt Fri, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas H. Tarcza can be reached on 571-272-6979. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Peter Bythrow  
Examiner  
Art Unit 3662

/Thomas H. Tarcza/

Supervisory Patent Examiner, Art Unit 3662